

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020322**Date Inspected:** 07-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). Deck Access Hole (DAH) Insert Weld at OBG 4W PP24.5 W5 (SMAW Exterior R-1 Repair)
- 2). Deck Access Hole (DAH) Insert Weld at OBG 3W PP19.5 W5 (SMAW Exterior R-1 Repair)
- 3). Deck Access Hole (DAH) Insert Weld at OBG 3W PP23.5 W2 (SMAW Interior R-1 Repairs)
- 4). Deck Access Hole (DAH) Insert Weld at OBG 3W PP19.5 W2 (SMAW Interior R-1 Repairs)
- 5). Deck Access Hole (DAH) Insert Weld at OBG 2W PP13.5 W5 (SMAW Interior R-1 Repairs)
- 6). Field Welding of Lower Counterweight Lug at 6W PP47 W1 (SMAW)
- 7). Field Welding of Lifting Lug Hole (LLH) Inserts (SMAW)
- 8). OBG Field Splice 9E/10E A Longitudinal Stiffeners (QA verification)

- 1). Deck Access Hole (DAH) Insert Weld at OBG 4W PP24.5 W5 (SMAW Exterior R-1 Repair)

The QAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) performing R-1 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position on the exterior of the DAH Insert Weld at OBG 4W PP24.5 W5. QC Inspector Gary Ehram was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1001 Repair. Welding of one excavated area was completed. The QAI observed the work at this location appeared to be in general compliance with contract documents.

- 2). Deck Access Hole (DAH) Insert Weld at OBG 3W PP19.5 W5 (SMAW Exterior R-1 Repair)

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The QAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) grinding to excavate and subsequently performing R-1 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position on the exterior of the DAH Insert Weld at OBG 3W PP19.5 W5. See photo below. QC Inspector Gary Ehram was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1001 Repair. Welding of one excavated area was completed. The QAI observed the work at this location appeared to be in general compliance with contract documents. The QAI observed that the repair area excavated had the following dimensions and the following Y locations:

#1 - Y = 3820mm, Length = 100mm, Depth = 17mm, Width = 20mm.

### 3).Deck Access Hole (DAH) Insert Weld at OBG 3W PP23.5 W2 (SMAW Interior R-1 Repairs)

The QAI periodically observed AB/F approved welder Jin Pei Wang (ID 7299) performing R-1 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position on the interior of the DAH Insert Weld at OBG 3W PP23.5 W2. QC Inspector Steve McConnell was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1001 Repair. Pick-up welding of various repair areas was in process on the interior. The QAI observed the work at this location appeared to be in general compliance with contract documents.

### 4). Deck Access Hole (DAH) Insert Weld at OBG 3W PP19.5 W2 (SMAW Exterior R-1 Repair)

The QAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) grinding to excavate R-1 repair areas on the exterior of the DAH Insert Weld at OBG 3W PP19.5 W2. QC Inspector Steve McConnell was present to monitor the progress and verify the excavated areas. No welding was performed at this location during the QA Inspector's shift. The QAI observed that two repair areas were excavated and had the following dimensions and Y locations:

#1 - Y = 470mm, Length = 230mm, Depth = 17mm, Width = 20mm.

#2 - Y = 1030mm, Length = 175mm, Depth = 17mm, Width = 20mm.

### 5). Deck Access Hole (DAH) Insert Weld at OBG 2W PP13.5 W5 (SMAW Interior R-1 Repairs)

The QAI periodically observed AB/F approved welder Wen Han Yu (ID 6317) performing R-1 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position on the interior of the DAH Insert Weld at OBG 2W PP13.5 W5. QC Inspector Scott Alder was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1001 Repair. Work was in process and the QAI observed the work at this location appeared to be in general compliance with contract documents.

### 6). Field Welding of Lower Counterweight Lug at 6W PP47 W1 (SMAW)

The QAI periodically observed AB/F approved welder Darcel Jackson (ID 9967) performing welding of a segment of a lower counterweight lug at 6W PP47 W1 per the Shielded Metal Arc Welding (SMAW) process in the 2G (horizontal) & 4G (overhead) positions. See photo below. QC Inspector Fred Von Hoff was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1080 rev 1. Welding and grinding was in process at this location. The QAI observed that the work appeared to be in general compliance with contract documents.

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### 7). OBG Field Welding of Lifting Lug Hole (LLH) Inserts (SMAW)

Exterior: OBG 4W PP25 W4 weld 3

The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing fit-up, tack welding and root, fill and cover pass welding of OBG 3W PP25 W4 weld 3 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Gary Ehram was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1050A CU rev. 0. Welding was completed and the QAI observed that the work appeared to be in general compliance with contract documents.

Exterior: OBG 4W PP25 W4 weld 4

The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing fit-up, tack welding and root and fill pass welding of OBG 4W PP25 W4 weld 4 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Gary Ehram was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1050A CU rev. 0. Welding was completed and the QAI observed that the work appeared to be in general compliance with contract documents.

### 8). OBG Field Splice 9E/10E A Longitudinal Stiffeners (QA verification)

The QAI performed verification Ultrasonic Testing (UT) of 100% of the lengths of OBG Field Splice 9E/10E ALS 4 & 5. The OBG Field Splices verified by the QAI appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

In addition to the photographs below QA documented most of the above noted observations in the form of digital photographs which are maintained by METS and are available upon request.



### Summary of Conversations:

Conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities and locations of welds released to the QAI for verification testing.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385 5910, who represents the Office of Structural Materials for your project.

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**Inspected By:** Madison,Bert

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer